Alo ABSTRACT

A new austenitic stainless steel contains 0.1-1.0 mass % of Si and not more than 0.003 mass % of Al. Nonmetallic inclusion dispersed in a steel 5 matrix is converted to MnO-SiO₂-Al₂O₃ containing not less than 15 mass % of SiO₂ and not more than 40 mass % of Al₂O₃. During steel making, molten steel is covered with basic slag and strongly deoxidized with a Si alloy whose Al content is controlled not more than 1.0 mass % in a vacuum or non-oxidizing atmosphere. The austenitic stainless steel sheet can be formed to an objective shape without occurrence of cracking due to its less crack-sensitivity and good formability.